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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/586,797	06/05/2000	Yun Hyung Yi	52467-081	7980

7590 01/16/2003

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PO Box 221200
Chantilly, VA 20153-1200

EXAMINER

NGUYEN, TAI V

ART UNIT	PAPER NUMBER
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3729

DATE MAILED: 01/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/586,797

Applicant(s)

YI, YUN HYUNG

Examiner

Tai V Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment filed by the applicant in paper No. 8 (filed 11/06/02) has been considered and made of record.

Election/Restrictions

2. This application contains claims directed to the following patentably distinct species of the claimed invention:

Species A, drawn to Figure 5, Claims 26 and 27; and

Species B, drawn to Figures 2 and 3, Claims 28-36.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, Claims 13-25 are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

3. Newly submitted Claims 28-36 are directed to an invention that is independent or distinct from the invention originally claimed for the following (reasons: Claims 28-36 are drawn to Species B as shown above.)

Since applicant has received an action on the merits for the originally presented invention (Species A), this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 28-36 have been withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 13-18 and 21-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Okumura et al (US 4,914,808).

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Regarding claim 13 and 21, Okumura et al discloses a method for surface mounting electrical components on a printed circuit board (PCB) with a surface mounter, comprising: locating a PCB (11, Fig 1) at a first (1, Fig. 1) mounting position by moving the PCB in both the X and Y directions within a working area of the surface mounter; picking up a plurality of electrical components with a corresponding plurality of suction nozzles (6, Fig. 1); and moving the plurality of suction nozzles simultaneously through turntable T to mount the electrical components on the PCB.

Regarding claims 14 and 22, Okumura et al discloses the PCB at a second (2, Fig. 5) mounting position within the working area of the surface mounter; and repeating (M 123, Fig. 3) the picking and moving steps.

Regarding claims 15 and 23, Okumura et al discloses the moving step comprises simultaneously moving the plurality of suction nozzles with respect to each other to mount the electrical components on the PCB (column 5, lines 58-66).

Regarding claims 16 and 24, Okumura et al the moving step comprises simultaneously moving the plurality of suction nozzles with respect to each other in both the X and Y directions to mount the electrical components on the PCB (column 5, lines 50-57).

Regarding claims 17 and 25, Okumura et al discloses the steps of checking (column 7, lines 20-27) the alignment of the electrical components held by the plurality of suction nozzles; and selectively rotating the suction nozzles and the held electrical components based on the results of the checking step before performing the moving step (column 7, lines 34-50).

Regarding claim 18, Okumura et al discloses the locating step comprises: transferring the PCB from a conveyer to a moving member (1-6, Fig. 5); and locating the moving member at the first (1, Fig 5) mounting position.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 19-20 and 26-27 are rejected under 35 U.S.C 103(a) as being unpatentable over Okumura et al (US 4,914,808) in view of Togami et al (US 5,855,059).

Regarding claims 19 and 26, Okumura et al discloses all the limitations as discussed above except the step of transferring the PCB from a first conveyer to a second conveyer before performing the locating step.

WST
Togami et al teaches the step ^{of} transferring the PCB from a first conveyer (14, Fig. 1) to a second conveyer (15, Fig. 1) before performing the locating step (see column 4, lines 5-10).

Regarding claim 20 and 27, Tagami et al further teaches comprising transferring the PCB from the second conveyer back to the first conveyer after performing the moving step (see column 5, lines 7-34)

WST
It would have been to one of ordinary skill in the art to modify the method of Okumura by utilizing the step of transferring the PCB from the a first conveyer to a second conveyer as taught by Togami, to accommodated different sizes of electrical components (Col. 4, lines 53-65).

Response to Arguments

8. Applicant's arguments with respect to claims 13-27 have been considered but are now moot in view of new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tai V Nguyen whose telephone number is (703) 308-1791. The examiner can normally be reached on M-F (7:30-4:30).

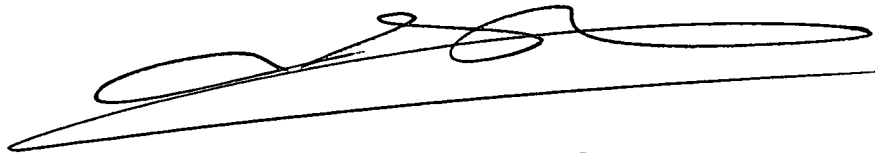
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vo Peter can be reached on (703) 308-1789. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703) 305-7307 for regular communications and (703) 305-3579 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.

Tn.
January 10, 2003

A handwritten signature in black ink, appearing to read 'PETER VO', written over a horizontal line.

**PETER VO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700**